

IN THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. Canceled.
2. Canceled.
3. Canceled.
4. (Currently amended) ~~The An apparatus of claim 1, further comprising:~~
a plurality of source followers, each of the plurality of source followers comprising a pull-down transistor having a source, a drain, a gate, and a bulk terminal;
a plurality of pull-up transistors, each of the plurality of pull-up transistors having a source, a drain, and a gate, wherein the drain of each of the plurality of pull-up transistors is coupled to the source of a pull-down transistor of the plurality of source followers, to output a plurality of differential signals via the drains of the plurality of pull-up transistors;
a first current source coupled to the sources of the plurality of pull-up

transistors;

an operational amplifier, coupled to the first current source, to drive the first current source; and

a feedback path coupled between the drains of the plurality of pull-up transistors and an input of the operational amplifier.

5. (Original) The apparatus of claim 4, wherein the feedback path further comprises a sensing circuit, the sensing circuit includes a plurality of transistors biased by a predetermined voltage.

6. (Original) The apparatus of claim 4, wherein the first current source is powered by a first voltage of at least about 1.624V to 2.725V.

7. (Currently amended) ~~The~~ An apparatus of claim 1, further comprising:
a plurality of source followers, each of the plurality of source followers comprising a pull-down transistor having a source, a drain, a gate, and a bulk terminal;

a plurality of pull-up transistors, each of the plurality of pull-up transistors having a source, a drain, and a gate, wherein the drain of each of the plurality of pull-up transistors is coupled to the source of a pull-down transistor of the plurality of source followers, to output a plurality of differential signals via the drains of the plurality of pull-up transistors; and

a low swing differential pre-driver, coupled to the gates of the pull-down transistors of the plurality of source followers, to drive the pull-down transistors.

8. (Original) The apparatus of claim 7, wherein the low swing differential pre-driver comprises:

a second current source;

a current sink including a transistor and a resistor, the transistor being coupled to the resistor in parallel; and

a load, coupled between the second current source and the current sink, to output a plurality of low swing differential signals, wherein each of the plurality of low swing differential signals drives the gate of the pull-down transistor of one of the plurality of source followers.

9. (Currently amended) The apparatus of claim 4Z, further comprising a plurality of inverters, each of the plurality of inverters being coupled to the gate of each of the plurality of pull-up transistors to amplify an input signal and to apply the amplified signal to the gate of the corresponding pull-up transistor, wherein the plurality of inverters are powered by a second voltage approximately between 1.1V and 1.3V.

10. (Currently amended) The apparatus of claim 4Z, further comprising:

a network interface including the plurality of pull-up transistors and the

plurality of source followers; and

a plurality of transmission lines coupled to the network interface, the plurality of transmission lines being driven by the plurality of low voltage differential signals.

11. (Original) The apparatus of claim 10, further comprising a network component coupled to the network interface via the plurality of transmission lines, wherein the network component includes a storage device.

12. (Previously presented) A method comprising:
providing a plurality of input signals to a plurality of pull-up transistors;
coupling each of the plurality of pull-up transistors to one of a plurality of pull-down transistors;

driving the plurality of pull-down transistors with a plurality of differential low swing signals to output a plurality of low voltage differential signals in response to the plurality of input signals; and

generating the plurality of differential low swing signals using a low swing differential pre-driver.

13. (Previously presented) The method of claim 12, further comprising reducing body effect on the plurality of pull-down transistors.

14. (Previously presented) A method, comprising:
- providing a plurality of input signals to a plurality of pull-up transistors;
 - coupling each of the plurality of pull-up transistors to one of a plurality of pull-down transistors;
 - driving the plurality of pull-down transistors with a plurality of differential low swing signals to output a plurality of low voltage differential signals in response to the plurality of input signals;
 - supplying current to the plurality of pull-up transistors from a first current source;
 - sensing one of the plurality of low voltage differential signals to produce a feedback signal; and
 - driving the first current source with an operational amplifier in response to the feedback signal.
15. Canceled.
16. (Previously presented) The method of claim 12, wherein generating the plurality of differential low swing signals using the low swing differential pre-driver comprises:
- supplying current to a load from a second current source;
 - sinking the current from the load via a transistor and a resistor, the transistor being coupled to the resistor in parallel; and

outputting a plurality of low swing differential signals via the load to the gates of the plurality of pull-down transistors.

17. (Previously presented) A method, comprising
- providing a plurality of input signals to a plurality of pull-up transistors;
- coupling each of the plurality of pull-up transistors to one of a plurality of pull-down transistors;
- driving the plurality of pull-down transistors with a plurality of differential low swing signals to output a plurality of low voltage differential signals in response to the plurality of input signals; and
- amplifying the plurality of input voltages using a plurality of inverters, each of the plurality of inverters being coupled to a distinct one of the plurality of pull-up transistors.

18. (Previously presented) An apparatus comprising:
- means for providing a plurality of input signals to a plurality of pull-up transistors;
- means for coupling each of the plurality of pull-up transistors to one of a plurality of pull-down transistors;
- means for driving the plurality of pull-down transistors with a plurality of differential low swing signals to output a plurality of low voltage differential signals in response to the plurality of input signals;

means for providing current to the plurality of pull-up transistors;
means for sensing one of the plurality of low voltage differential signals to
produce a feedback signal; and
means for adjusting the current in response to the feedback signal.

19. Canceled.

20. (Original) The apparatus of claim 18, further comprising means for
generating the plurality of low swing differential signals.